

Appl. No. 10/788,833
Amdt. dated 03/22/2005
Reply to Office action of 12/22/2004

P804-1242E-US

Amendments to the Drawings:

The attached replacement sheets of drawings include changes to Figs. 5A, 6A, 5E, 6E, 11C and 12G. These sheets replace original sheets 14/41, 18/41, 26/41 and 29/41.

Attachment: 4 Replacement Sheets
4 Annotated Marked-up Drawing Sheets

REMARKS / ARGUMENTS

For the convenience of the Examiner and clarity of purpose, Applicant has reprinted the substance of the Office Action in *10-point bolded and italicized font*. Applicant's arguments immediately follow in regular font.

The Preliminary Amendments filed 27 February 2004, 01 October 2004, and 22 November 2004 have been entered and considered with the Office Action below.

Applicant thanks the Examiner for her efforts on this application.

1. The drawings are objected to because the following figures do not include any reference numbers which are required for complete understanding of the claimed invention: 5A, 6A, 5E, 6E, 11C, and 12 G. Reference numbers should be added to the figures and, if not already found in the specification, added to the specification. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Figures 5A, 6A, 5D and 6E have been amended by adding reference numerals. Support for these amendments may be found in, for example, paragraphs [0050] through [0052].

Figure 11C has been amended by adding reference numerals. Support for this amendment may be found in, for example, paragraph [0068].

Figure 12G has been amended by adding a reference numeral. Support for this amendment may be found in, for example, paragraph [0069].

Applicant contends that the amended drawings comply with Rules 81, 83 and 84.

2. *The drawings are objected to because of the following informalities: Figures 5A-5E and 6A-6E are objected to because it appears that two drawing labels have been given to one figure, i.e. Figure 5A and 6A are the same figure. The examiner recognizes that applicant is attempting to show the different positions of the claimed invention but notes that each figure should be labeled as only one figure showing the change in position.*

Applicant does not fully understand the substance of this objection or what corrective action the Examiner contemplates. Applicant contends that Figures 5A through 5E comprise partial views (in accordance with Rule 84(h)(2)) of a cross-sectional side view of a pressure actuated device (PAD) valve shown in an *open* configuration. Figures 6A through 6E comprise partial views (in accordance with Rule 84(h)(2)) of a cross-sectional side view of the PAD valve of Figures 5A through 5E shown in a *closed* configuration. These series of partial views are shown adjacent one another to better illustrate the structure and functioning of this particular embodiment of the invention. Applicant contends that no correction is necessary and no amendments to the drawings have been made in response to this objection.

4. *The abstract of the disclosure is objected to because the abstract does not adequately describe the claimed invention as the claims are drawn toward a pressure actuated valve and a tool shiftable valve. Correction is required. See MPEP § 608.0 1(b).*

The Abstract has been amended.

6. *The disclosure is objected to because of the following informalities: the Cross-reference Application data should be updated to include the patent number of the parent application. Appropriate correction is required.*

The cross-reference to other applications has corrected.

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7. *Claims 32, 37, and 45 are objected to because of the following informalities:*

Claim 32 is objected to because it is the opinion of the examiner that applicant intended the claim to depend from claim 27 and is treating it as such for the purposes of examination.

The Examiner is correct. Claim 32 should depend directly from claim 27 and not claim

26. Claim 32 has been amended accordingly.

Claim 37 recites the limitation "the production screen" in line 1. There is insufficient antecedent basis for this limitation in the claim.

The dependency of claim 37 has been changed from claim 27 to claim 36.

Claim 45 is objected to because it is the opinion of the examiner that applicant intended the claim to depend from claim 44 and is treating it as such for the purposes of examination. Appropriate correction is required.

Again, the Examiner is correct. Claim 45 should depend directly from claim 44 and not

claim 38. Claim 45 has been amended accordingly.

9. *Claims 27-30, 37-43, and 46-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Hilsman, III (US 4,940,093).*

Regarding claim 27: Hilsman discloses an isolation system that includes the following features: An isolation pipe (Figures 6 and 7). A pressure activated valve 60 coupled to the pipe. A tool shiftable valve 244 (the examiner notes that this element is noted as reference character "44" in the specification but appears to be labeled "244" in Figures 6 and 7) coupled to the pipe and in communication with the pressure activated valve.

Applicant disagrees with the Examiner's characterization of what Hilsman discloses. Applicant contends that Hilsman discloses an external sliding sleeve 44, 244 that is structured to open (or shift) by interfering with and reacting against the packer sleeve 28, 228 when the gravel packing tool 210 is retracted. See Hilsman, col. 6. ln 55 to col. 7, pg. 4. Applicant disagrees that

the external sleeve 44, 244 can be considered a “tool shiftable valve.” Hilsman nowhere discloses or teaches using a “tool” to shift the external sliding sleeve. Applicants do not understand the gravel packing tool 210 or the packer sleeve 228 of Hilsman to be a “tool” for shifting the external sleeve 44, 244. Also note that Applicant disagrees that Hilsman’s gravel packing tool 210 is properly considered an “isolation system” or “isolation pipe.” The gravel packing tool 210 may be used with an isolation system, but it is not an isolation system.

In contrast, claim 27 requires a “*tool* shiftable valve” (emphasis added). As disclosed in the specification at paragraph [0066] and as generally understood in the art, a “tool shiftable valve” refers generally to a valve that requires a separate tool, such as a cross over tool or service tool, for engagement with the valve (or some portion of the valve assembly) for shifting the valve from one state to another, such as opened to closed. Hilsman does not disclose the use of a tool to shift the external sleeve 44, 244 and Hilsman does not teach that the external sleeve 44, 244 may be adapted to shifting by such a tool. Thus, among other things, Hilsman does not disclose a “*tool* shiftable valve” as recited in claim 27 (emphasis added). Applicant contends that claim 27 as presented patentably distinguishes over Hilsman. Claim 27 has not been amended in response to this rejection. Reconsideration of this rejection is requested.

Regarding claim 28: The tool shiftable valve is a sliding sleeve that is movable between an open and closed position.

As discussed with respect to claim 27, the external sleeve 44, 244 of Hilsman is not properly considered to be a “tool shiftable valve.” Because claim 28 depends from claim 27 and because Applicant contends that claim 27 is patentable over Hilsman, claim 28 is likewise

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patentable and has not been amended in response to this rejection. Reconsideration is requested.

Regarding claims 29, 40, 47, 48: The system, and the sleeve, is inserted into the well to allow a gravel packing operation to occur before closing the sleeve and opening the pressure activated valve.

Applicant disagrees with the Examiner's characterization of what Hilsman discloses and teaches. Applicant understands Hilsman to disclose operating the "automatic closure valve 68" with pressure to close off the reverse circulation ports 72 to set the packer. See Hilsman, col. 6, lns. 19 – 24 ("As can be seen through a review of the FIGS. 6 and 7, the automatic closure valve effects the same operation of closing off reverse circulation so that pressure may be increased to set the packer in an manner similar to that of the mechanism shown in FIGS. 1 and 2."). Thus, Hilsman's "pressure activated valve" is operated *before* setting the packer and, therefore, before any gravel packing operation can occur.

In contrast, claim 29 recites that the pressure activated valve is operated *after* a gravel packing operation. For at least these reasons, Applicant submits that this claim is patentably distinct from Hilsman and depends from a patentably distinct claim. Claim 29 has not been amended in response to this rejection. Reconsideration is requested.

Likewise, claims 40 and 48 have not been amended in response to this rejection because, among other reasons, each claim depends from an independent claim (38 and 46, respectively) that Applicant contends herein are patentable over Hilsman. Reconsideration is requested.

Claim 47 recites that the "tool shiftable valve is closed during *opening* of the pressure activated valve." Hilsman discloses and teaches inserting the tool 210 into the well, pressuring

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up the tool to *close* the automatic closure valve 68, and thereafter setting the packer. Once in the fully closed position, a locking pawl 86 secures the automatic valve 68 in the *closed* position. See Hilsman, col. 6, lns. 2 – 7. Hilsman does not disclose or teach how the automatic valve 68 can be reopened. For at least these reasons, Applicant contends that claim 47 is patentably distinct from what Hilsman discloses and teaches. Claim 47 has not been amended in response to this rejection. Reconsideration is requested.

Regarding claim 30: The pipe includes a port 240 through which fluid flows when the sleeve is in the open position.

Claim 30 depends indirectly from claim 27, which Applicant contends is patentable over Hilsman for at least the reasons stated above. Claim 30 has not been amended in response to this rejection. Reconsideration is requested.

Regarding claim 37: Though not specifically disclosed, the system would inherently include a screen as this is well known feature of a gravel packing system.

Claim 37 recites that the “production screen is wrapped around the outside of the pressure activated valve and the tool shiftable valve.” In contrast, Hilsman discloses a tool 210 for gravel packing a well, which tool is removed from the well (while leaving the screen system in place) to produce fluids from the well. Thus, even though a screen may be used with the Hilsman gravel packing tool 210, a screen is not disclosed to be “wrapped around the outside of the “automatic closure valve and the external sleeve.” Indeed, because the Hilsman external sleeve 44, 244 is located on the outside of the tool 210 housing and actuated by interfering with the packer sleeve

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228, it is hard to imagine how a screen could be wrapped around the outside of the tool 210 and still have the total 210 function as Hilsman intended. Further, claim 37 depends indirectly from claim 27, which Applicant contends is patentable over Hilsman for at least the reasons stated above. Claim 37 has not been amended in response to this rejection. Reconsideration is requested.

Regarding claims 38, 41: Hilsman further discloses a method for using the above system. The method involves the following steps: Inserting the system into the wellbore. Shifting the sleeve. Opening the pressure activated valve through the use of pressurized fluid.

As discussed above, Applicant disagrees with the Examiner's characterization of what Hilsman discloses and teaches. Hilsman does not disclose or teach opening the automatic valve by pressurizing the valve after it has been closed. See Hilsman, col. 6, lns. 2 – 7.

Applicant contends that claim 38 is patentably distinct from what Hilsman discloses and teaches. Claim 38 has not been amended in response to this rejection. Reconsideration is requested.

Applicant contends that Hilsman's gravel pack tool 210 is not an isolation string. Further, claim 41 depends from claim 38, which Applicant contends is patentable over Hilsman for at least the reasons stated above. Claim 41 has not been amended in response to this rejection. Reconsideration is requested.

Regarding claim 39. The opening of the pressure activated valve occurs while the sleeve is in the wellbore.

As discussed above, once Hilsman's automatic valve 68 has been pressurized and closed, a locking pawl 86 secures the automatic valve in the closed position. Hilsman does not disclose or teach opening the automatic valve thereafter by pressurizing the valve. See Hilsman, col. 6, lns. 2 – 7.

Applicant contends that claim 39 is patentably distinct over Hilsman. Further, claim 39 depends from claim 38, which Applicant contends is patentable over Hilsman for at least the reasons stated above. For at least these reasons, Claim 39 has not been amended in response to this rejection. Reconsideration is requested.

Regarding claim 43. The system allows production fluid to flow through the valves.

Applicant understands this rejection to be directed at claim 42 instead of 43. Applicant contends that Hilsman's gravel pack tool 210 is removed from the wellbore prior to production. See Hilsman, col. 5, ln. 28-31 ("Following completion of the gravel packing operation, the service tool 10 may be withdrawn by merely lifting it through the packer sleeve 28.")

Based on this understanding of Hilsman, Applicant contends that claim 42 is patentably distinct over Hilsman. Further, claim 42 depends from claim 38, which Applicant contends is patentable over Hilsman for at least the reasons stated above. For at least these reasons, claim 42 has not been amended in response to this rejection. Reconsideration is requested.

Regarding claims 43, 49 The tool shiftable valve is moved using a shifting tool (6:55-67), which is removed after the sleeve longer, needs to be moved.

Applicant disagrees with the Examiner's characterization of what Hilsman discloses and teaches. Applicant contends that Hilsman does not disclose or teach using a shifting tool to open the external sleeve 44, 244. In Hilsman, retracting the gravel pack tool 210 causes the external sleeve (actually the snap ring 248) to bang against the packer sleeve 228. Further upward movement opens the external sleeve 44, 244. Applicant does not consider the gravel packing tool 210 or the packer sleeve 228 to be a "shifting tool" or the external sleeve to be a "tool shiftable valve."

Thus, Applicant contends that claims 43 and 49 are patentably distinct over Hilsman. Further, claim 43 depends from claim 38 and claim 49 depends from claim 46, both of which Applicant contends are patentable over Hilsman for at least the reasons stated above. For at least these reasons, neither claim 43 nor claim 49 has been amended in response to this rejection. Reconsideration is requested.

Regarding claim 46: Hilsman further discloses a method for using the above system. The method involves the following steps: Inserting the system into the wellbore. Setting the system in the wellbore adjacent perforations. Shifting the sleeve. Opening the pressure activated valve through the use of pressurized fluid. Producing fluid through tubing in the wellbore.

Applicant disagrees with the Examiner's characterization of what Hilsman discloses and teaches. For example, as discussed above, Applicant contends that Hilsman does not disclose or teach "shifting the tool shiftable valve with a shifting tool." Also, as discussed above, Applicant contends that Hilsman does not disclose or teach, "opening the pressure activated valve."

For at least these reasons, Applicant contends that claim 46 is patentably distinct over Hilsman. Claim 46 has not been amended in response to this rejection. Reconsideration is requested.

10. *Claims 1 and 23-26 are allowed.*

Applicant thanks the Examiner for her efforts in reviewing and allowing these claims.

11. *Claims 3 1-36, 44, 45, and 50-54 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.*

Applicant thanks the Examiner for her efforts in reviewing these the patentability of claims. At this time, Applicant elects not to rewrite these claims in favor of the arguments presented herein for patentability of the independent claims.

12. *The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The remaining references made of record disclose various wellbore valve and valve systems.*

Applicant has no comment at this time concerning the references made of record but not relied on.

New Claims

Applicant has presented new claims 55 through 65. While not identical in form or scope, claims 53 and 60 are modeled after claim 27, claim 64 is modeled after claim 38 and claim 65 is modeled after claim 46. Applicant contends that these claims are allowable over the prior art of record.

Information Disclosure Statement

Submitted herewith are several Form 1449s listing information for consideration by the Examiner. Because this application was filed after June 30, 2003, and in accordance with the OG Notice dated August 5, 2003, copies of all U.S. Patents and Published Applications do not accompanying the IDS.

Also submitted herewith is a chart showing the interrelationship of this application with other issued and co-pending applications, in compliance with MPEP 2001.06(b). A significant portion of the information cited in the IDS submitted herewith comes from these related applications.

Conclusion

The only fee thought to be due for this paper and its related submissions in the fee set forth in 37CFR § 1.17(p) in the amount of \$180 for submission of the IDS. If Applicant's belief is in error and one or more fees are due, the Commissioner is hereby authorized to change any fee necessary to make this and related papers timely and effective to deposit account 12-1322 (020569-05007).

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Applicant thanks the Examiner for her consideration and effort on this matter and submits that this application is now in condition for allowance. Applicant respectfully requests that a timely Notice of Allowance be issued in this case. The Examiner is invited to call the undersigned with any questions concerning this application.

Respectfully submitted,

LOCKE LIDDELL & SAPP LLP

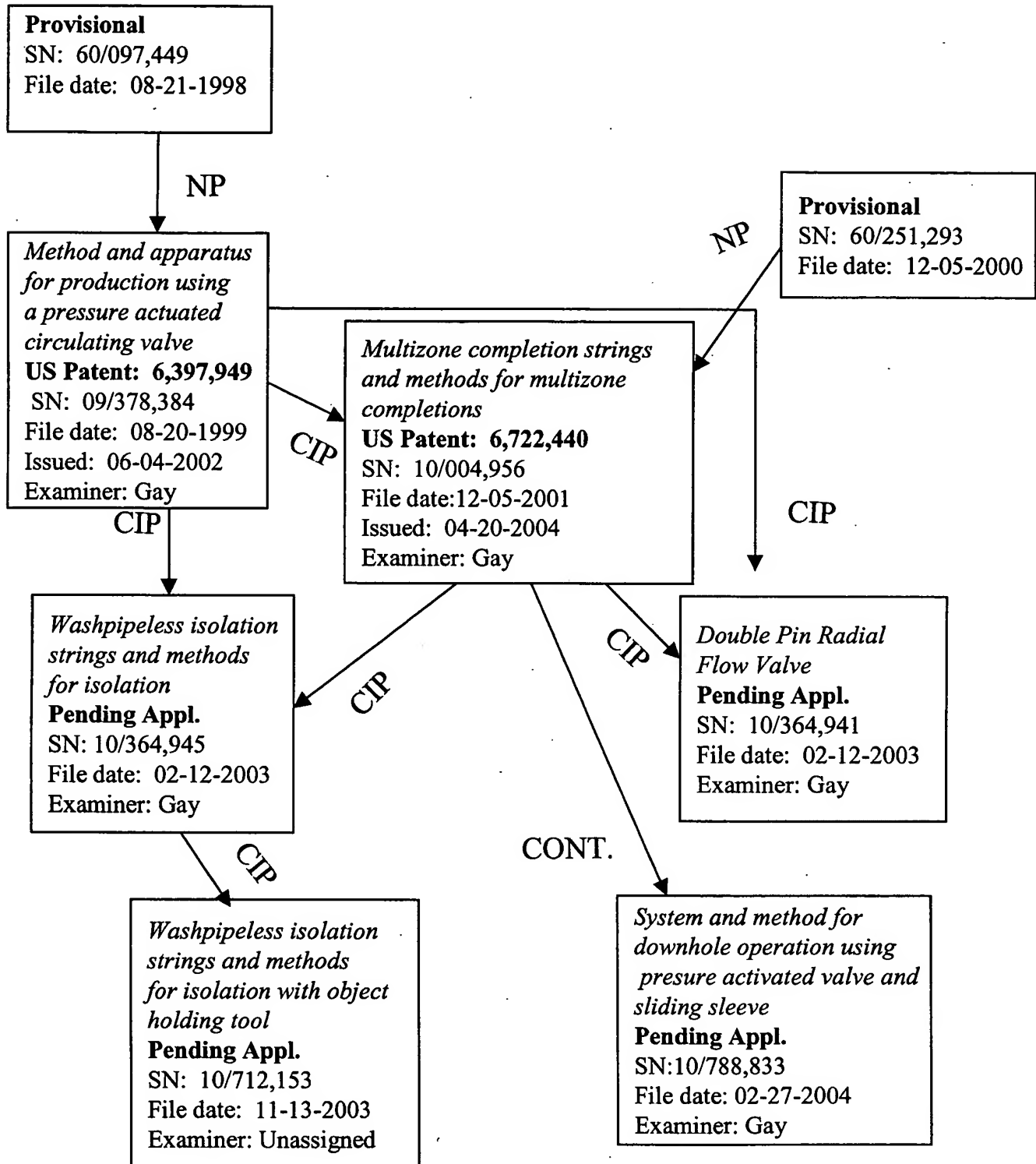
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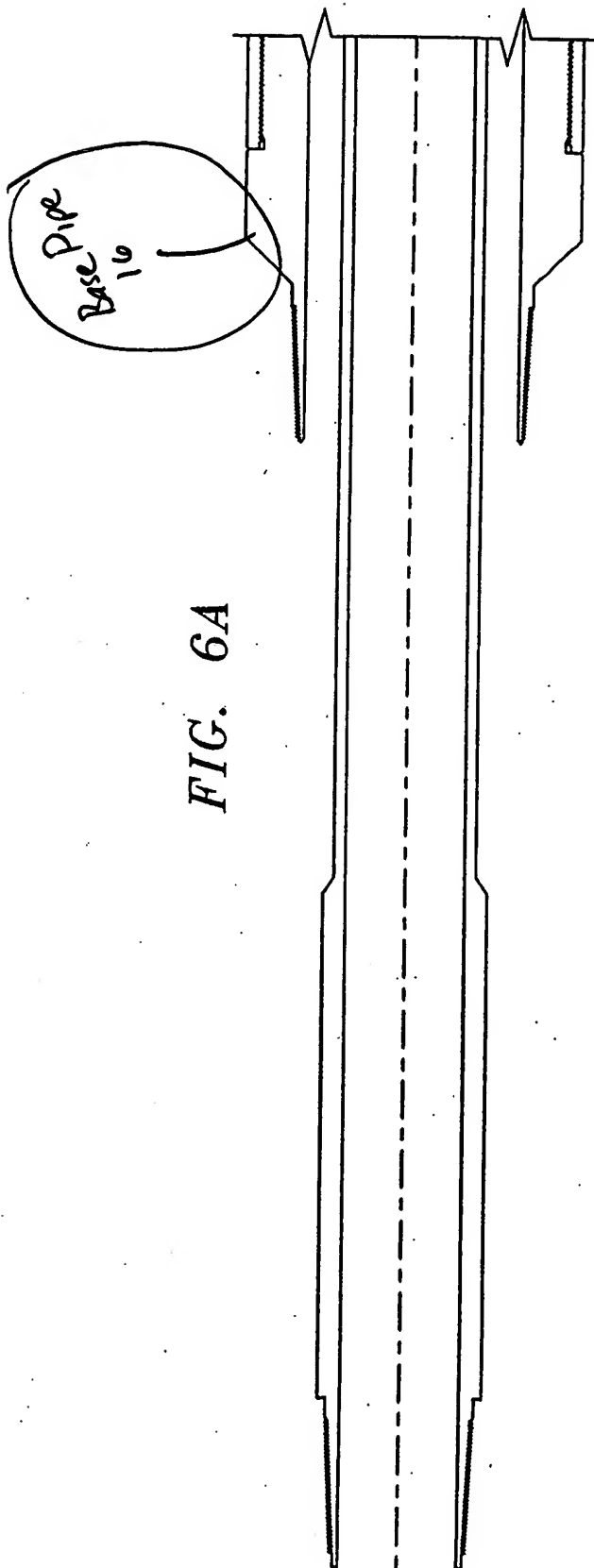
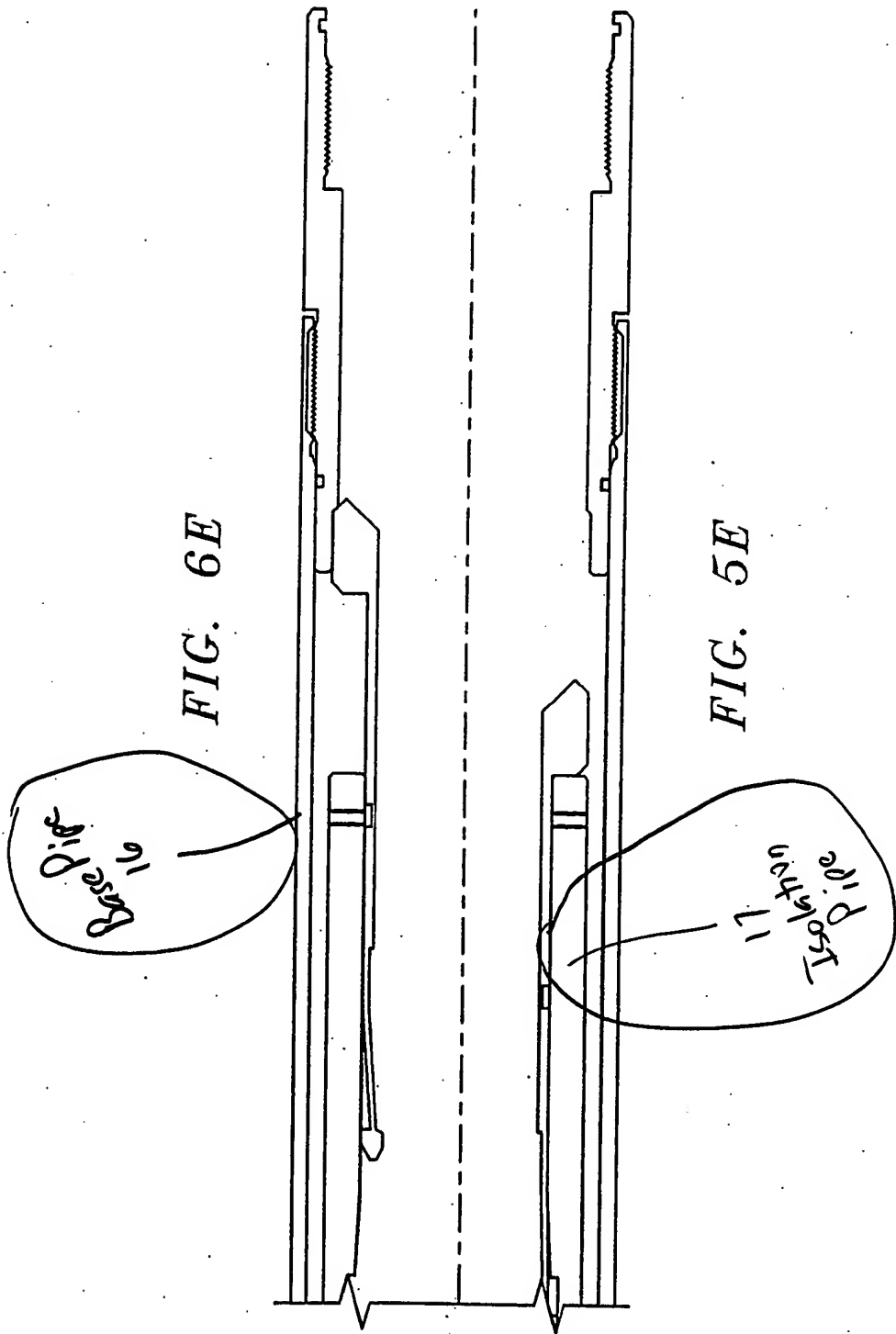


FIG. 6A

FIG. 5A



26/41

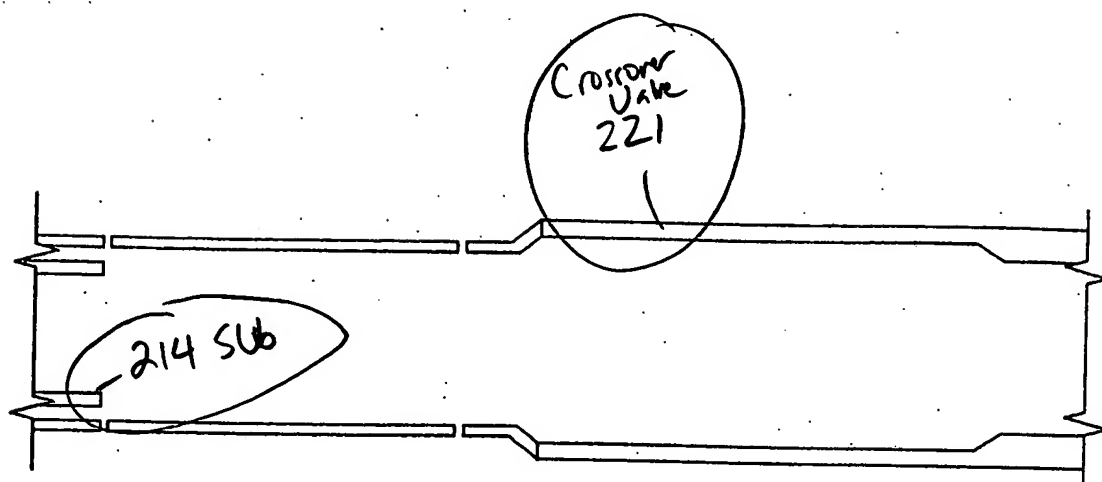


FIG. 11C

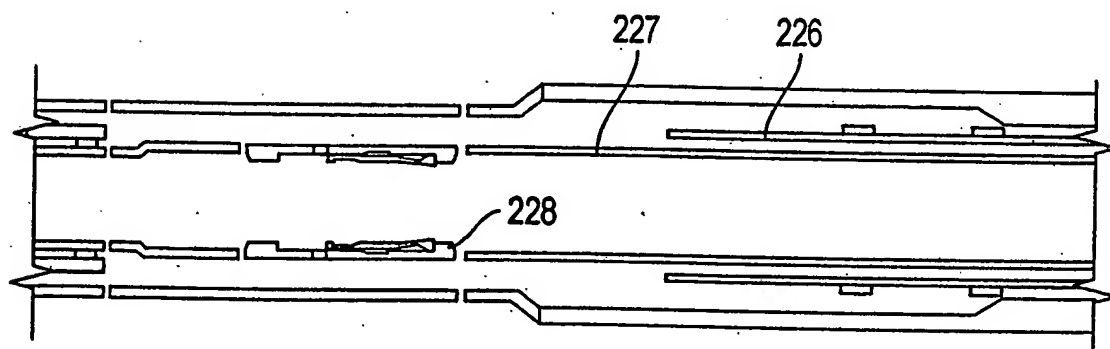


FIG. 12C

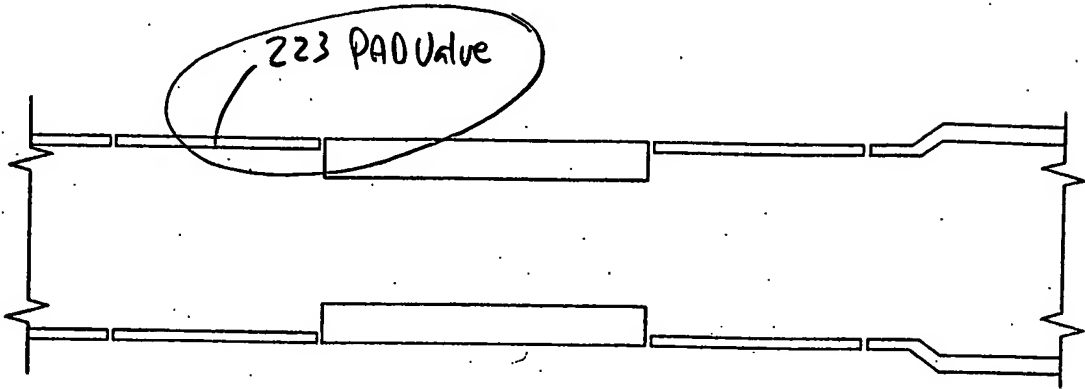


FIG. 12G

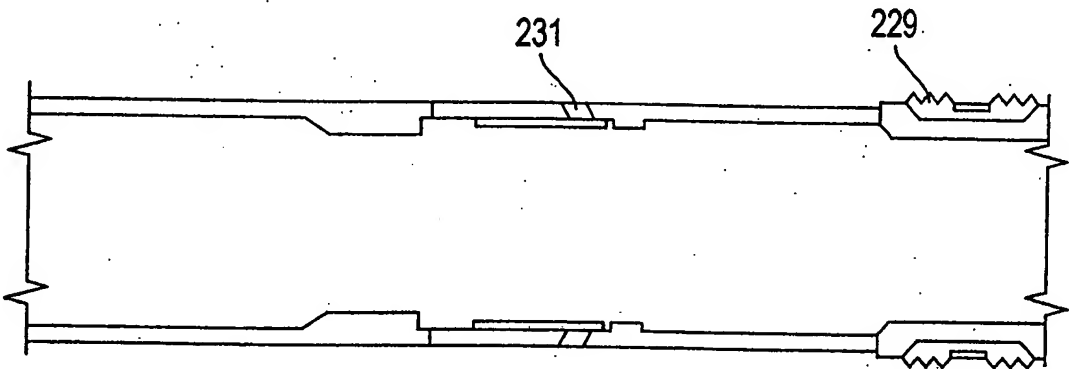


FIG. 12H

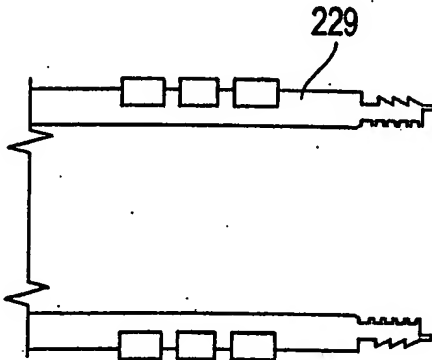


FIG. 12I